Resolution No.: 19-07

# RESOLUTION BOARD OF DIRECTORS OF THE ARVADA FIRE PROTECTION DISTRICT

A RESOLUTION ADOPTING THE 2018 EDITION OF THE INTERNATIONAL FIRE CODE WITH LOCAL AMENDMENT, WITHIN THE PORTIONS OF THE DISTRICT LOCATED IN UNINCORPORATED JEFFERSON COUNTY.

**WHEREAS**, the Arvada Fire Protection District ("District") is a quasi-municipal corporation and political subdivision of the State of Colorado, organized pursuant to C.R.S. 32-1-101, et seq("Special District Act") to provide fire suppression, fire prevention, rescue, hazardous materials, ambulance and emergency medical service, directly or through third-party providers;

**WHEREAS**, a portion of the area within the District's jurisdiction lies within unincorporated Jefferson County, Colorado;

**WHEREAS**, the Special District Act authorizes the District's Board of Directors ("Board") to adopt and enforce a fire code within the District's jurisdiction; however, that a fire code adopted by the District Board can only be enforced within unincorporated Jefferson County if it is first approved by the Jefferson County Board of Commissioners ("County Commissioners");

**WHEREAS,** the District Board desires to adopt the 2018 edition of the International Fire Code, with the amendments specifically identified in the Local Amendments to the 2018 International Fire Code attached to this Resolution as Appendix A (collectively the "2018 IFC With Local Amendments") and incorporated in its entirety herein by this reference; and;

WHEREAS, in accordance with the Special District Act, the District Board intends to submit the 2018 IFC with Local Amendments to the County Commissioners for approval. The District Board further intends that the 2018 IFC with Local Amendments shall not apply within unincorporated Jefferson County until the County Commissioners adopt an ordinance stating the 2018 IFC with Local Amendments applies within the portion of the County that also lies with the District's jurisdiction.

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE ARVADA FIRE PROTECTION DISTRICT:

- 1. The 2018 Edition of the International Fire Code, including Appendices B, D, E, F, H, I, and K, thereto, published by the International Code Council, with the amendments specifically identified in the Local Amendments to the 2018 International Fire Code attached to this Resolution as Appendix A, is hereby adopted as the District's Fire Code for all portions of the District's jurisdiction located within unincorporated Jefferson County, subject to the following conditions:
  - a. The District's Fire Marshal shall promptly submit the 2018 IFC with Local Amendments to the County Commissioners for approval.
  - b. The 2018 IFC with Local Amendments shall not apply until the County Commissioners adopt an ordinance stating the 2018 IFC with Local Amendments

applies within the portions of the District's jurisdiction lying within unincorporated Jefferson County (the "Effective Date"), the 2018 IFC with Local Amendments shall apply to portions of unincorporated Jefferson County lying with the District's jurisdiction.

- 2. On and after the date the County Commissioners adopt an ordinance stating the 2018 IFC with Local Amendments applies within the portions of the District's jurisdiction lying within Unincorporated Jefferson County (the "Effective Date"), the 2018 IFC with Local Amendments shall be administered and enforced by the District's Fire Chief, and his/her authorized representative(s), as required and provided for in the Special District Act, and any other applicable Federal, State, or local laws, rules, and ordinance, or common law.
- 3. For the purpose of enforcing the 2018 IFC with Local Amendments on and after the Effective Date, the District's Fire marshal is an authorized representative of the Fire Chief. This paragraph 3, shall not limit the designation of additional authorized representatives if the Fire Chief deems it necessary for the effective enforcement of the 2018 IFC with Local Amendments.
- 4. Nothing contained in the Resolution shall be construed as modifying or limiting in any manner the powers, duties and responsibilities of the District, and the District's Fire Chief or his/her authorized representative(s), set for in the Special District Act, or as otherwise provided by statutory or common law.
- 5. The Fire Code currently in force in the District's jurisdiction and previously adopted by the County Commissioners shall remain in full force and effect until the Effective Date of the 2018 IFC with Local Amendments.
- 6. The 2018 IFC with Local Amendments shall be interpreted in conformance with all Federal, State and local laws and ordinances, including but not limited to the Special District Act.
- 7. If any provision of the Resolution or attached Appendix A is for any reason held to be invalid, the invalidity shall not affect the validity of the remaining provisions of this Resolution and the attached Appendix A. The Board expressly declares it would have adopted this Resolution and the attached Appendix A even if a provision contained in either this Resolution or the attached Appendix A is declared invalid.

#### APPENDIX A

#### LOCAL AMENDMENTS TO THE 2018 INTERNATIONAL FIRE CODE

**Local Amendments.** The 2018 edition of the International Fire Code and its Appendices are amended as follows:

#### **CHAPTER 1, ADMINISTRATION**

#### Section 101.1 Title, is amended to read as follows:

**101.1 Title.** These regulations shall be known as the Fire Code of the Arvada Fire Protection District, hereafter referred to as "this code".

# Section 101.2.1 Appendices, is amended to read as follows:

**101.2.1 Appendices.** By this reference, Appendices B, D, E, F, H, I and K are adopted and incorporated into this code for all purposes. Appendices A, C, G, J, L, M and N are excluded from adoption.

# Section 103.1 General, is amended to read as follows:

**103.1 General.** This code shall be enforced by the Fire Marshal's Office of the Arvada Fire Protection District, which is operated under the direction of the fire code official. The function of the Fire Marshal's Office and staff shall be the implementation, administration and enforcement of the provisions of this code.

#### Section 110.4 Violation Penalties, is amended to read as follows:

**110.4 Violation penalties.** Persons, firms or corporations who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under the provisions of this code, shall be guilty of a fire code violation, punishable as specified in C.R.S. 32-1-1002.

#### Section 112.1 Order, is amended to read as follows:

**112.1 Order.** Whenever the fire code official or designee finds any work regulated by this code being performed in a manner contrary to the provisions of this code or in a dangerous or unsafe manner, the fire code official is authorized to issue a stop work order.

#### **CHAPTER 2, DEFINITIONS**

#### Section 202 is amended by addition and modification of the following definitions:

**Fire code official.** The Fire Marshal of the Arvada Fire Protection District, hired by, and working under the supervision of the Fire Chief of the Arvada Fire Protection District.

**Governing body.** The Board of Directors of the Arvada Fire Protection District.

The Arvada Fire Protection District with respect to that portion of unincorporated Jefferson County lying within the boundaries of the Arvada Fire Protection District.

#### **CHAPTER 3, GENERAL PRECAUTIONS AGAINST FIRE**

Section 308.1.4 Open flame cooking devices, is amended to read as follows:

**308.1.4 Open flame cooking devices.** Charcoal burners and other open flame cooking devices shall not be operated on or within 10 feet (3048 mm) of combustible construction.

# **Exceptions:**

- 1. One- and two-family dwellings.
- 2. Where buildings and decks are protected by an automatic sprinkler system.
- 3. LP-gas cooking devices having a LP-gas container with a water capacity of not greater than 20 pounds.

Section 315.3.5, Marking maximum permitted storage height, is added and reads as follows:

Section 315.3.5 Marking maximum permitted storage height. Identification of the maximum approved storage height shall be provided in areas where stacked or shelved storage of materials occurs. The maximum approved height will be based upon the requirements of Chapter 32 of this code. Maximum storage height identification shall consist of a minimum of a four (4) inch (101.6mm) stripe on a contrasting background and shall be placed at the maximum storage height as determined by Chapter 32 above the finished floor to designate the maximum permitted storage height, and clearly labeled with the designation "No Storage Above This Line".

#### **CHAPTER 5, FIRE SERVICE FEATURES**

Section 503.2. Specifications, is amended to read as follows:

**Section 503.2 Specifications.** Fire apparatus access roads shall be installed and arranged in accordance with Sections 503.2.1 through 503.2.8.

- **503.2.1 Dimensions.** Fire apparatus access roads shall have an unobstructed width of not less than described in 503.2.1.1 through 503.2.1.3, exclusive of shoulders, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 13 feet 6 inches (4115mm).
- **503.2.1.1 Dimensions-public streets.** Public streets that are used for fire apparatus access shall have an unobstructed width that meets the dimensions and parking restrictions as set forth by the Jefferson County Transportation Design and Construction Manual.
- **503.2.1.2** Dimensions-driveways and private roads serving commercial and multifamily residential sites. Driveways and private roads serving commercial and multifamily residential sites used for fire apparatus access shall have an unobstructed width of not less than 24 feet.

**503.2.1.3 Dimensions-driveways and private roads serving one- and two-family dwelling units.** Driveways and private roads serving one- and two-family dwelling units used for fire apparatus access shall have an unobstructed width that meets the dimensions and parking restrictions as set forth by the Jefferson County Transportation Design and Construction Manual.

**Section 503.2.4 Turning radius.** The required turning radius of a fire apparatus access road shall have a minimum inside radius of 27 feet and an outside radius of 50 feet. Computer modeling may be required to establish that the fire district's apparatus can adequately maneuver through the proposed access road(s).

Section 507.5.1.1 Hydrant for automatic sprinkler systems and standpipe systems is amended to read as follows:

Section 507.5.1.1 Hydrant for automatic sprinkler systems and standpipe systems. Buildings equipped with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and/or standpipe system installed in accordance with Section 905 shall have a fire hydrant installed a minimum of 50 feet and maximum of 150 feet from the fire department connection.

#### **CHAPTER 9, FIRE PROTECTION AND LIFE SAFETY SYSTEMS**

Section 901.4.6 Location of sprinkler control valves and fire pumps, is amended to read as follows:

Section 901.4.6 Location of sprinkler control valves and fire pumps. Where provided, fire pump and automatic sprinkler system riser rooms shall be designed with adequate space for all equipment necessary for the installation, as defined by the manufacturer, with sufficient working space around the stationary equipment. Clearances around equipment to elements of permanent construction, including other installed equipment and appliances, shall be sufficient to allow inspection, service, repair or replacement without removing such elements or permanent construction or disabling the function of a required fire-resistance-rated assembly. Fire pump and automatic sprinkler system riser rooms shall be provided with doors and unobstructed passageways large enough to allow removal of the largest piece of equipment. The room shall provide a minimum of 36 square feet working space around fire pump or automatic sprinkler system risers.

**Section 901.4.6.1 Access.** Automatic sprinkler system risers, fire pumps and controllers shall be provided with ready access. Where located in a fire pump room or automatic sprinkler system riser room, the door shall be permitted to be locked provided that the key is available at all times. When fire pumps and controllers, and fire sprinkler risers serve multiple tenant spaces, they shall be placed within an approved room that has access provided directly from the building exterior. These rooms shall be designed so that it meets the requirements set forth in Section 901.4.6.

#### Section 903.4.2 Alarms, is amended to read as follows:

**903.4.2 Alarms.** An approved audible/visual alarm appliance located on the exterior of the building in an approved location shall be connected to each automatic sprinkler system. Such sprinkler waterflow alarm devices shall be activated by waterflow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Where a fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system and provide notification set forth in Section 907.5. When buildings have multiple tenant spaces, notification devices shall be installed in accordance with Section 907.5 in each tenant space.

#### Section 904.13, Domestic cooking systems, is amended to read as follows:

**904.13 Domestic cooking systems.** Cooktops and ranges installed in the following occupancies shall be protected in accordance with Section 904.13.1:

- 1. Unchanged
- 2. Unchanged
- 3. Unchanged
- 4. In Group R-4 occupancies where domestic cooking facilities are installed in accordance with the International Building Code.

# Section 912.2, Location, is amended to read as follows:

**912.2 Location.** With respect to hydrants, driveways, buildings and landscaping, fire department connections shall be so located that fire apparatus and hose connected to supply the system will not obstruct access to the buildings for other fire apparatus. The fire department connection for automatic sprinkler systems and standpipe systems shall be located a minimum of 50 feet and maximum of 150 feet of a fire hydrant. The fire code official shall approve the location of the fire department connection.

#### Section 912.4.1 Locking fire department connection caps, is amended to read as follows:

**912.4.1 Locking fire department connection caps.** Approved locking fire department connection caps shall be installed on fire department connections on all new water-based fire protection systems. Installation of approved locking fire department connection caps shall be required on existing water-based fire protection systems where there are missing caps or interior obstructions of the fire department connection.

#### CHAPTER 11, CONSTRUCTION REQUIREMENTS FOR EXISTING BUILDINGS

### Section 1103.5.3 Group I-2, Condition 2, is amended to read as follows:

**1103.5.3 Group I-2, Condition 2.** In addition to the requirements of Section 1103.5.2 existing buildings of Group I-2, Condition 2 occupancy shall be equipped throughout with an approved automatic sprinkler system in accordance with Section 903.1.1.1. The automatic sprinkler system shall be installed in accordance with Section 1101.4.

#### CHAPTER 33, FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION

#### Section 3310.1 Required access, is amended to read as follows:

**3310.1 Required access.** Approved fire apparatus access for firefighting and emergency medical services is required to all construction or demolition sites. Access shall be provided to within 150 feet of all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building. When approved, temporary fire apparatus access can be installed during construction of sites not consisting of one-and two-family dwellings or Group R occupancies and where practical difficulty exists with providing permanent access during construction. Permanent fire apparatus access shall be provided prior to occupancy. Approved temporary access shall be installed as set forth in Sections 3310.1.2 through 3310.1.4.

Section 3310.1.2 Temporary fire apparatus access road dimensions. Temporary fire apparatus access roads shall have an unobstructed width of not less than 24 feet and a vertical clearance of not less than 13 feet 6 inches.

**Section 3310.1.3 Surface.** Temporary fire apparatus access roads shall have an all-weather surface consisting of the first lift of asphalt, concrete or other materials approved by the fire code official. The surface shall be capable of supporting an 85,000-pound imposed load. Documentation from a licensed geotechnical or civil engineer attesting that the surface will support the required imposed load shall be provided.

**3310.4 Dead ends.** Dead end temporary fire apparatus roads in excess of 150 feet in length shall be provided with an approved area for turning around fire apparatus.

#### Section 3301 General, is added and reads as follows:

**3301 General.** This chapter shall apply to structures in the course of construction, alteration or demolition, including those in underground locations. Compliance with NFPA 241 is required for items not specifically addressed herein. A written plan shall be submitted to the fire code official for review and approval of proposed plan.

#### **CHAPTER 53, COMPRESSED GASSES**

#### Section 5307.1 General, is amended to read as follows:

**5307.1 General.** Compressed gasses in storage or use not regulated by the material-specific provisions of Chapters 6, 54, 55 and 60 through 67, including asphyxiant, irritant and radioactive gasses, shall comply with this section in addition to other requirements of this chapter. The provisions of this chapter shall apply to new or existing systems.

Section 5307.3 Insulated carbon dioxide systems used in beverage dispensing applications, is amended to read as follows:

**5307.3** Liquid carbon dioxide systems used in beverage dispensing applications. Liquid carbon dioxide systems with more than 100 pounds of carbon dioxide used in beverage dispensing applications shall comply with Section 5307.3.1.

#### CHAPTER 57, FLAMMABLE AND COMBUSTIBLE LIQUIDS

Section 5704.2.9.6.1 Locations where above-ground tanks are prohibited, is amended to read as follows:

**5704.2.9.6.1 Locations where above-ground tanks are prohibited.** Storage of Class I and II liquids in above-ground tanks outside of buildings shall conform to the geographic limits established in this section.

Section 5706.2.4.4 Locations where above-ground tanks are prohibited, is amended to read as follows:

**5706.2.4.4 Locations where above-ground tanks are prohibited.** Storage of Class I and II liquids in above-ground tanks outside of buildings shall conform to the geographic limits established in this section.

Section 5806.2 Limitations, is amended to read as follows:

**5806.2 Limitations.** Storage of flammable cryogenic fluids in stationary containers outside of buildings shall conform to the geographic limits established in this section.

### **CHAPTER 61, LIQUIFIED PETROLEUM GASSES**

Section 6104.2 Maximum capacity within established limits, is amended to read as follows:

**6104.2 Maximum capacity within established limits.** Within the limits established by law restricting the storage of liquified petroleum gas for the protection of heavily populated or congested areas, the aggregate capacity of any one installation shall not exceed a water capacity of 2,000 gallons within the Arvada Fire Protection District.

Section 6109.9, is amended to read as follows:

**6109.9 Storage within buildings open to the public.** Department of Transportation (DOTn) specification cylinders with maximum water capacity of 20 pounds used in completely self-contained hand torches and similar applications are allowed to be stored or displayed in a building open to the public. The quantity of LP-gas shall not exceed 200 pounds except as provided in Section 9109.11.

#### **CHAPTER 80, REFERENCED STANDARDS**

Chapter 80 Referenced standards, is amended by adding the following section:

**8001 NFPA standards.** In the following cases where this code references these standards published by the National Fire Protection Association (NFPA), the most current edition of the referenced standard is hereby adopted. The most current edition of the referenced NFPA standard shall become effective on January 1<sup>st</sup> following the publication and release of the standard.

- NFPA 13D
- NFPA 13R
- NFPA 13

- NFPA 14
- NFPA 72

#### APPENDIX B, FIRE-FLOW REQUIREMENTS FOR BUILDINGS

Table B105.1(1) Required fire flow for one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses, is amended as follows:

# TABLE B105.1(1) REQUIRED FIRE-FLOW FOR ONEAND TWO-FAMILY DWELLINGS, Group R-3 and R-4 BUILDINGS AND TOWNHOUSES

FIRE-FLOW	AUTOMATIC SPRINKLER	MINIMUM	FLOW DURATION
CALCULATION	SYSTEM	FIRE-FLOW	(hours)
AREA (square feet)	(Design Standard)	(gallons per minute)	
0-3,600	No automatic sprinkler system	1,000	1
3,601 and greater	No automatic sprinkler system	Value in Table	Duration in Table
		B105.1(2)	B105.1 (2) at the
			reduced flow rate
0-3,600	Section 903.3.1.3 of the International	1,000	1/2
	Fire Code or Section P2904 of the		
	International Residential Code		
3,601 and greater	Section 903.3.1.3 of the International	½ value in	1
	Fire Code or Section P2904 of the	Table	
	International Residential Code	B105.1(2) <sup>a</sup>	

For SI: 1 gallon per minute = 3.785 L/min.

Table B105.2 Required fire flow for buildings other than one- or two-family dwellings, Group R-3 and R-4 buildings and townhouses, is amended to read as follows:

# TABLE B105.2 REQUIRED FIRE-FLOW FOR BUILDINGS OTHER THAN ONEAND TWO-FAMILY DWELLINGS, Group R-3 and R-4 BUILDINGS AND TOWNHOMES

AUTOMATIC SPRINKLER SYSTEM	MINIMUM FIRE-FLOW	FLOW DURATION		
(Design Standard)	(gallons per minute)	(hours)		
No automatic sprinkler system	Value in Table B105.1(2)	Duration in Table B105.1 (2)		
Section 903.1.1 of the International Fire	50% of the value in Table	Duration in Table B105.1 (2) at		
Code	B105.1 (2) <sup>a</sup>	the reduced flow rate		
Section 903.1.2 of the <i>International Fire</i>	50% of the value in Table	Duration in Table B105.1 (2) at		
Code	B105.1 (2) <sup>b</sup>	the reduced flow rate		

For SI: 1 gallon per minute = 3.785 L/min.

- b. The reduced fire-flow shall not be less than 1,500 gallons per minute.
- c. The reduced fire-flow shall not be less than 1,500 gallons per minute.

#### APPENDIX D, FIRE APPARATUS ACCESS ROADS

Section D102.1 Access and loading, is amended to read as follows:

**D102.1** Access and loading. Facilities, buildings or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an approved fire

a. The reduced fire-flow shall not be less than 1,000 gallons per minute.

apparatus access road with an asphalt, concrete, or other materials approved by the fire code official capable of supporting the imposed load of fire apparatus weighing 85,000 pounds.